

Applicant: Meggiolan  
Application No.: 10/073,405

### REMARKS

The Amendment adds claims 50-52, withdraws claims 20-23, 40-45, 47, and 49 without prejudice, and amends claims 1, 5, 6, 19, 46, and 48. Claims 1-19, 24-39, 46, 48, 50-52 are currently pending.

The Action includes a restriction requirement between three inventions. Applicant chooses Invention I, and withdraws claims 41-45 without prejudice. Upon selection of Invention I, the Action requires a choice between the species in claims 5-8 and 46 directed to a synthetic material core, and claims 20-23, 40, 47, and 49 directed to a metal material core. Applicant chooses claims 5-8 and 46 and withdraws claims 20-23, 40, 47, and 49 without prejudice. These restrictions, however, are improper.

The difference between the choice of material in the core, namely, metal versus synthetic material, does not render the claims materially different. Choosing a specific material is a common practice in claim-drafting. See, for example, U.S. Patent No. 6,685,384 issued in February 2004 related to a bicycle component that has claims directed to both metal and plastic components:

6. The cable harness assembly according to claim 5, wherein said rigid material is plastic.
7. The cable harness assembly according to claim 5, wherein said rigid material is metal.

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The '384 patent's claims' material choice is common practice and should not subject the claims to restriction. The burden of examining the claims for a metal and synthetic core places no serious burden on the Patent Office. The Applicant asks that the restriction be withdrawn.

The Action rejected claims 5-7, 19, and 46 under 35 U.S.C. 112. The Amendment amends the claims in response to the rejection, specifically, changing the units in claims 5-7 and 46 and correcting the dependency of claim 19 as suggested.

The Action rejected claims 1-4 and 9-13 as anticipated by U.S. Pat. No. 5,246,275 to Arredondo. Arredondo shows a method for producing a lightweight wheel using an inflatable mandrel 70. Composite material is placed over the mandrel and then the mandrel is inflated inside a mold. The air-inflatable expansion compresses the material against the inner surfaces of the mold. Col. 12, lines 36-53. Following the inflation of the mandrel, the mold, composite, and mandrel is placed in an oven and heated. Col. 12, lines 58-60.

Arredondo does not show or suggest what is claimed in claims 1-4 and 9-13 for at least two reasons. First, Arredondo does not show the step of "expanding the core due to the temperature increasing step, which applies a pressure on the tubular body against the inside the mould" in claim 1. In Arredondo, the core expands due to the *inflation* of the core, not the temperature expansion as claimed.

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Second, in Arredondo, the core expansion step *precedes* the step of heating the mold, which is the opposite of what is claimed. As claimed, the core expands due to the temperature increase; thus core expansion and temperature increase are substantially simultaneous as claimed. (See, for example, claim 2: "Method according to claim 1, wherein the increase of temperature of the mould and the expansion of the core occur substantially simultaneously.") Claims 2-4 and 9-13 all depend from claim 1, and are thus allowable for the same reasons.

The Action rejects claims 5, 6, 14, 16-19<sup>1</sup>, 24-39, 46, and 48 as obvious over Arredondo in view of no additional art. These twenty-five claims are rejected without finding a teaching of the elements in any of the prior art. The Action relies consistently on the rejection that what is claimed would have been known to one of ordinary skill in the art. The Action does not, however, point to any reference that teaches the limitations. For an obviousness rejection, "the prior art reference (or references when combined) *must* teach or suggest all of the claim limitations." MPEP 702.02(j).

Arredondo does not.

For claims 5-8, and 46, Arredondo does not mention any thermal dilation coefficient, and Arredondo's "highly elastic material" does not suggest *any* specific thermal dilation coefficient, let alone the claimed coefficient. The Action provides no

<sup>1</sup> Claim 19 is not explicitly rejected, but it is listed on page 7 of the Action. As argued below, the references do not

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referential support for the argument that Arredondo suggests the claimed coefficients. In addition, the Action relies on no teaching to render claim 8's material selection obvious.

For claims 14 and 16-18, the Action provides no support for its argument that the shapes of the core are obvious. The Action admits that the claimed shapes are not shown in Arredondo.

Claims 24-39 and 48 are similarly not suggested in Arredondo. In particular though, the advantageous cuttings that allow for a more uniform covering of the core are not shown in Arredondo. These shapes are specifically advantageous for the hub shape and would not be useful in Arredondo's wheel. (See Application Figure 3 with triangular cutouts which would have no advantage in Arredondo.) Arredondo's statement that "fiber mats can be cut to any desired shape (Col. 13, lines 65-66) teaches no shapes, and certainly not the claimed shapes. Further, as to the Action's statement that Arredondo Table 1 teaches how to orient fibers on a hub, it does not. Table 1 teaches only orientation on a *wheel*, and would be inapplicable to the claimed hub.

The Amendment amends claims 24 and 26 to conform them to U.S. practice. Minor amendments to several of the claims previously discussed are made for the same reason.

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show or suggest the subject matter recited in claim 19.

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New claims 50-52 are not shown in the prior art. The claimed end flanges, including the helical springs, are not shown or suggested in the prior art.

For the above reasons, Applicant respectfully submits that the presently claimed invention is patentable over the prior art. Reconsideration and allowance of the claims is respectfully requested. If the Examiner believes that a telephone conference, telephonically, or in person, would advance the prosecution of this application, please contact the undersigned to arrange such a conference.

Respectfully submitted,

Mario Meggiolan

By Stephen B. Schott  
Stephen B. Schott  
Registration No. 51,294  
(215) 568-6400

Volpe and Koenig, P.C.  
United Plaza, Suite 1600  
30 South 17th Street  
Philadelphia, PA 19103

SBS